Automotive Industries

INDEX Volume 105

July 1 to December 15

1951

0

Chilton Company, Inc. Philadelphia 39, Pa. PRICE, 50¢

AUTOMOTIVE INDUSTRIES

EDITORIAL INDEX TO VOLUME 105

Issues July 1 to December 15, 1951, Inclusive

	Inque	Page	
Abstracts Aluminum-six per dent magnes- ium wrought alloys for elevated temperature service Automatic and hydraulic trans- missions			
ium wrought alloys for slevated temperature service	11-15	39	
Automatic and hydraulic trans- missions	12-1	43	
Automotive finishes Big market ahead for LPG in farm	12-1	80	
equipment Bulldozer power and dimensions Chrome plated rings and the wear	7-1 10-1	98	
problem	9-15	136	
Cladding of molybdenum for ser- vice in air at elevated tempera-			
ture Design considerations for plastic	11-15	41	
gears Design factors concerning Diesel	7-1	52	
Design factors concerning Diesel fuel injection equipment Development in a universal pro- pelling unit Discussion of Humphreys constant	12-1	78	
pelling unit Discussion of Humphreys constant	10-1	51	
compression engine Effects of combustion chamber deposits on octane requirement	12-1	43	
deposits on octane requirement and engine power output	7-1	38	
deposits on octane requirement and engine power output Experimental high speed Diesel engine, "JBX" Farm tractors and implements	7-1	102	
Para tractors and implements Fuel tank explosion suppression Hard facing for impact	10-1	100	
Mumphreys constant-compression	11-15	90	
engine Improved method for estimating the fatigue life of bevel and	12-1	41	
the fatigue life of bevel and hypoid gears	7-1	37	
hypoid gears Interrelation of mechanical prop- erties of ductile cast iron	11-15	40	
LPG development LPG versus gasoline and Diesel	7-1	49	
fuel Wilitary dump bodies Wilitary wheeled transport vehicle	7-1	60	
Wilitary wheeled transport vehicle requirements	7-1		-
requirements Wodification of standard earth- moving equipment for military			1
requirements More powerful engines for trucks Plastics in the automotive in-	10-1	104	
dustries	12-1	52	
Possible mechanisms by which combustion chamber deposits ac-			
combustion chamber deposits ac- cumulate and influence knocks Powder metallurgy for gear manu-	7-1		
Recent sandwich construction de-	7-1	50	
velopments Titanium industry expands Trends in Air Force research	11-1	138	
Trends in Air Force research and development Turbosupercharging of high-speed	11-1	45	
	9-15	33	
Why automobile finishes lose luster	8-1	70	
AIRCRAFT DESIGN - See Design.			
AIRCRAFT ENGINES - See Engines			
AIRCRAFT PARTS - See New Develop- ments & New Products			
AIRCRAFT PRODUCTION - See Produc- tion Methods			
Associations & Organizations - See also Government Agencies			
American Gear Mirs. Asso. hold	7-1	50	
annual meeting and elect officers American Petroleum Institute		-	
American Petroleum Institute discusses LPG as a motor fuel International Metal Sessions at	7-1		
Detroit SAE French Lick Meeting discloses	7-1		
SAE French Lick Meeting discloses military vehicle developments SAE National Aeronautic Meeting	11-1 9-15	42	
SAE West Coast Meeting Timely subjects discussed at SAE tractor production meeting	10-1		
SAE tractor production meeting	10-1	30	
Automotive Parts			
Anti-fouling spark plug developed by Boeing Checking Chrysler V-8 crankshaft	11-1	66	
Checking University V-5 Crangehalt			

by Continued) by Continued) by air gaing machine hrome plated rings and the wear problem (abstract) in Ford auto- ever aluminum parts (Warmer Gear) ydrapower steering (Nome Gear) tool) autopower steering (Nome Gear) tool) aluminum plates tool for the steering the steering cussed by Nody Englineers aluminum platen aluminum platen aluminum platen toon part plug gaskets in Chrysler Firepower engine (Butterworth three hational BAE Meetings dis- cuss transportation, fuels and engines ide wariety of universal joints on the production line (Universal)	7-1 9-15 10-1 10-15 12-1 11-1 10-1 7-1	53 136 44 39 52 37 54	Carbursters - See New Products A New Developments Car Descriptions Antiques to Not Rods at second annual McCorams sents Austin "Seven" and other new models Buick's NF-300 construction- ai details Chrysler neine for 1952 Chrysler looks shead - 1952 models	12-15 11-15 12-1	47
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)	10-15 12-1 11-1 10-1 7-1	39 52 37	Antiques to Not Rods at second annual Motorsms British Automobile Show pre- sents Austin "Seven" and other new sodels Buick's XP-300 construction- al details Chrysler has larger six-cy-	12-15	
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)	12-1 11-1 10-1 7-1	52 37	sents Austin "Seven" and other new models Buick's XP-300 construction- al details Chrysler has larger six-cy-	11-15	35
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)	11-1 10-1 7-1	37	Buick's XP-300 construction- al details Chrysler has larger six-cy-	12-13	33
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)	10-1 7-1	-	Chrysler has larger six-cy-		35
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)	7-1	54		14-1	
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)			Chrysler looks ahead - 1952	12-15	56
of England) hree National SAE Meetings discuss transportation, fuels and engines lide variety of universal joints on the production line (Universal Products)		45	models Piat's Italian "Jeep" in		34
engines lide variety of universal joints on the production line (Universal Products)		45	models Fiat's Italian "Jeep" in production Ford adds luxury model, the Comete, to line in France LoSabre features light alloy construction Mercedes atarts production of	12-1	45
Products)	12-1	40	Comete, to line in France LeSabre features light alloy	9-15	37
			construction Mercedes starts production of two new passenger cars, the 300 and 220 models (Germany) power braking paris '51 Automobile Show em- phasizes production Pontiac offers Dual-Range Pontiac offers Dual-Range Small cars dominate second Berlin show Spain's new Pegaso car's mechanical features walkshield (England)	8-15	50
	7-1	42	two new passenger cars, the 300 and 220 models (Germany)	8-15	96
Aircooled lightweight Diesel for			52 Packard features Easamatic power braking	11-1	40
Aircooled lightweight Diesel for aircraft (Diesel Power, Inc.) Alodizing Navy Cutlass fighters against corrosion (Chance Yought) Booming West Coast aircraft in- dustry	11-15	80	Paris '51 Automobile Show em- phasizes production	11-1	34
against corrosion (Chance Vought) Booming West Coast aircraft in-	8-1	38	Pontiac offers Dual-Range Hydra-Matic for 1952	12-1	49
dustry Five tons of magnesium in Convair B-36 airframe	11-15	42	Small cars dominate second Berlin show	10-1	32
B-36 sirframe Puel tank explosion suppression (abstract)	10-1	52	Spain's new Pegaso car's mechanical features	11-15	32
(abstract) Fully demountable twin-hull assem-	11-1	44	Vauxhall announces new cars	9-15	46
Pully demountable twin-hull assem- bly buck for seaplanes (Consoli- dated Vultee)	8-15	46	Chassis	0.10	40
Hot spraying of lacquer feasible for aircraft How airframe design trends affect	9-1	42	CHENICALS - See New Products		
How airframe design trends affect	8-1	52	& New Developments		
manufacturing methods (Lockheed) Largest 140-ton Princess flying boat nearly completed in England (Saunders-Roe) Latest British aircraft and engines			Cleaners & Cleaning - See also New Products & New Develop-		
(Saunders-Roe)	10-1	40			
at Parnborough show	10-15 7-1	42	New chemical bath "blasts" scale from forgings (Penna.	7-1	
New automatic fuel control for J-57	11-15	-	Salt Mfg.)	7-1	57
Largest 140-ton Princess flying boat nearly completed in Ringland (Saunders-Nos) Little in Ringland (Saunders-Nos) Little in Ringland (Saunders-Nos) Little in Ringland (Saunders-Nos) Little in Ringland	8-1	45	CONNECTING BODS - See New Pro- ducts & New Developments		
Recent sandwich construction de-	11-1		CONSTRUCTION - See Plant change		
Research that produced world's first	11-1		new and expansion.		
SAE National Aeronautic Meeting	11-15 11-1	48	American sports cars win		
National Air Races	9-1	41	New record set in French 24	10-15	45
ment (Northrop)	7-15	38	Contests Asserican sports cars win Wathins Glen Grand Prix New record set in French 24 hour race at LeMans Speeds up to 800 mph at 1951 National Air Races	8-15	112
at secret station	9-1	34		9-1	41
rends in Air Force research and de- yelopment (abstract)	11-1	43	Contracts Defense contract awards Defense contract awards Facts that reflute allowed	10-15 11-15	142 112
airplanes	8-15	48	Pacts that reflute alleged concentration of defense	11-15	112
airplanes Unit assembly of wings with 30,000 lb. fixture (Convair) Wheels for world's fastest strate- sphere jet bomber (Goodrich)	11-15	36	contracts	8-15	33
sphere jet bomber (Goodrich)	8-1	36	Renegotiations needs sales- manship	10-15	4.6
Azles - See New Products & New			CONVENTIONS - See Meetings.		
Developments			Cooling Systems		
В			Cooling Systems Heat exchanger setup cools cutting oil (Young Radiator)	11-15	122
Bearings - See also New Products, Aut motive Parts Special six-press setup stamps bearing retainers faster (Oldsmobil	:0-		COPPER INDUSTRY - See Metals.		
Special six-press setup stamps bearing retainers faster (Oldsmobil	le) 9-1	62	CRANKSHAFTS - See New Products.		
Bodies - See also Design Gameral					
Trends Effects of steel quality on body de- sign and fabrication			Cylinder Blocks - Aluminum cylinder blocks and heads formed by new method		
	12-15	116	(Alco)	12-15	34
Stakes '52 Packard features Essamatic power braking			D		
	11-1	40	DESCRIPTIONS - See Car, Truck, Airplane, Engine and Now Products Descriptions.		
Buses - See also Engines. Building a bus per hour (ACF-Brill) Fuel costs cut \$1300 per year per bus using propane	8-15	3 34	Products Descriptions.		
Fuel costs cut \$1300 per year per	7-15	5 120	Design Design considerations for plastic gears (abstract) Diagram drawing showing use of iron and steel in a hay baler		
			plastic gears (abstract)	7-1	52
Business Conditions - See also Pro- duction, Automotive & Aviation Booming West Coast aircraft industr	v 11-15	5 42	of iron and steel in a hay		
Business Pulse, The (Guaranty Trust	y 11-15) 7-15) 8-15	5 52 5 52	baler Effects of steel quality on	12-1	51
Business Pulse, The (Guaranty Trust) 9-1:) 10-1:) 11-1:	5 48 5 62	baler Effects of steel quality on body design and fabrication How alfframe design trends affect manufacturing methods (Lockheed) Latest warpilee for more pay	12-15	116
Business Pulse, The (Guaranty Trust	11-15	5 54	(Lockheed)	8-1 7-1	82
Metals - analysis of market	7-	1 39	Lighter vehicles for more pay	7-1	40
Metals - analysis of market	8- 9- 10-1	5 49	load Modern leaf spring design	0.1	1
Motals - analysis of market	13-	1 54	New features of Chile Doring)	12-15	38
Metals - analysis of market Metals - analysis of market	12-	1 50	wes reserved or dar. a nowl.		
Booming West Coast sireraft industrations pushes the (duarant) frust Business Pulse. The (duarant) frust Metals - analysis of market Wetals - analysis of market Nationalization a new Truman doc-	11-		Range Hydra-Matic trans- mission	12-15	36
Metals - analysis of market Metals - analysis of market Metals - analysis of market Nationalization - a new Truman doc- trine New England executives confer on re- negotiation	8-1	5 32	load Modern leaf spring design (Standard Steel Spring) New features of GMC's Dual- Range Hydra-Matic trans- nission DIESEL ENGINES - See Enginus.	12-15	36

DRIVES - See Transmission.	lasue	Page	Pinishes - (Continued) Tests prove value of ceramic	Issue		Inspection - (Continued) Methods	[esus	Page
E EARNINGS - See Pinancial News.			Why automobile finishes lose	8-1	48	Checking Chrysler V-8 crank- shaft by air gaging machine	7-1	53
			luster (abstract)	8-1	70	INSTRUMENTS - See New Products & New Developments		
Products & New Developments. Armature quality improved by			Foreign Plants Latest American methods employed by Renault in France	9-1	32	I.		
automatic winding (Ford)	11-15	92	by Renault in France Vauxhall plant tools up for new model	8-15	43	LACOURES - See Pinishes		
Kagimes Advanced methods for machining jet engine parts (Fratt & Whitney) Aircooled lightweight Diesel for aircraft (Diesel Power, Inc.) Aircooled race engine with swing type intake valves by Butter-			Poreign Business Activities - See also Exports & Imports Britain's nationalized trans- port operated at huge loss and leaves trail of widespread discontent		-	LATHES - See New Products & New Developments		
Whitney) Aircooled lightweight Diesel for	8-15	38	Britain's nationalized trans- port operated at huge loss			LEAD INDUSTRY - See Metals		
Aircooled race engine with swing	11-15	80	and leaves trail of widespread discontent	9-15	45	Letters		
worth of Eng. Alf Romeo 1900 engine (drawing)	7-1 8-15	45	show	10-1	39	Vasco super high speed steels for machining titanium	12-15	158
Buick XP-300 engine Building and testing Caternillar	9-1	44	Mexican company organized to build Fiat cars and trucks Observations in Europe	12-1	101	Lights, Vehicle - See New Pro- ducts & New Developments		
Diesel engines	11-15	52	Spain plans greater automobile production facilities TransportRussia's achilles'	10-15	40	W		
engine for 1952 Cummins experimental high speed Diesel engine "JSX" (abstract) DeSoto's self-contained produc-	12-15	56	TransportRussia's achilles' heel?	9-15	39	MACHINE TOOLS - See also New		
Diesel engine "JSX" (abstract) DeSoto's self-contained produc-	7-1	102	Fuels			RACHINE TOOLS - See also New Products & New Developments Heavy equipment for making large road building machines		
Discussion of Humphreys constant	12-15	42	Big market ahead for LFG in farm equipment (abstract) Effects of combustion chamber	7-1	98	large road building machines (Caterpillar Tractor)	7-15	34
compression engine (abstract) Effects of combustion chamber	12-1	43	deposits on octane require- ment and engine power output			(Caterpillar Tractor) Special equipment in Cadillac's tank plant	8-15	49
deposits on octane requirement and engine power output (abstract Engines, fuels and transportation discussed at three National SAE	7-1	38		7-1	38	MAINTENANCE FACTORY - See Pro-		
discussed at three National SAE sectings	12-1	40	octane naptha to 98-175	9-15	47	duction Methods Materials Handling		
	12-1	41	(abstract) Pluid hydroformer converts 55 octame napths to 98-175 Puel costs cut \$1300 per year per bus using propane Puels, transportation and engine discussed at three National	7-15	120	Automatic materials handling at Ford's new parts plant Faster handling of palletized parts (Stewart-Warner) New handling system for stocks of sheet metal (Pratt &	12-1	36
engine (abstract) Lancia Aurelia V-6 engine (drawing)	7-15	36		12-1	40	Paster handling of palletized	12-15	-
Latest British aircraft and	10-15	42	LPG as a motor fuel discussed at American Petroleum Inst.			New handling system for stocks of sheet metal (Pratt &		
engines at Parmoorough show Latest improvements in GW two- stroke Diesels - 4-17 & 6-71 Latest jet engines displayed at Paris Aviation Show Making jet engine inducers an ex-	9-1	46	Meeting LPG development (abstract) LPG versus gasoline und Diesel fuel (abstract)	7-1	48	Versatile materials handling	9-1	64
Latest jet engines displayed at Paris Aviation Show	7-15	45	LPG versus gasoline and Diesel fuel (abstract)	7-1	48	setup at large tractor plant (Caterpillar Tractor)	7-15	40
acting process at incorpor Fro-	7-1	54	NBS research on basic nature of detonation New method for analysis of jet	10-1	37	MECHANICAL HANDLING - See Pro-		
ducts Wanual handling reduced on Waukesh engine assembly lines	7-1	46	engine exhaust gas (NBS) Possible mechanisms by which combustion chamber deposits	7-15	60	duction Methods, New Products & New Developments		
More powerful engines for trucks	12-1	72	combustion chamber deposits accumulate and influence knock			Meetings		
NBS research on basic sature of	10-1	37	(abstract) Progress report on the coal-	7-3		American Gear Mfrs. Asso. hold annual meeting and elect officers	7-1	5.0
New aircooled engines feature starting at -65P (Continental) New automatic fuel control for	9-15	32	burning gas turbine	10-1	47	officers American Petroleum Inst. dis- cusses LPG as a motor fuel Influence of defense program	7-1	
J-57 turbolet engine (Humiliton			Fuel Systems Design factors concerning Diese fuel injection equipment (ab-	1		Influence of defense program discussed by Body Engineers International Metal Sessions	12-1	52
Standard) Possible mechanisms by which com- bustion chamber deposits accumu- late and influence knocks	11-15	148			78	International Metal Sessions at Detroit	10-15	5 50
late and influence knocks (abstract)	7-1	106	New automatic fuel control for J-57 turbojet engine (Hamilton Standard)	11-15	148	at Detroit Largest Metal Show and Congress in History New England executives confer	11-15	38
Progress report on the coal-burning as turbine	10-1	47	G			on renegotation Renegotation needs salesman-	12-1	53
Rolls-Royce develops beavy-duty	8-15	51	GAGES - See New Developments & New Products			ship - discussed at manage-	10-15	46
Diesels Small gas turbine that may be started by hand	9-15	34				SAE Prench Lick Meeting dis-		
	9-15	36	GASOLINE - See Puels			developments SAE National Aeronautic Meetin SAE West Coast Meeting Three National SAE Meetings	7-1 g 11-1	32 1 42 5 33
24,000 hp dynamometer Turbosupercharging of high-speed Diesel engine (abstract) EXHIBITS - See Shows	9-15	34	Gears - See also Axles, Trans- missions, New Products & New Developments			discuss transportation, fuels		
F			Developments Design considerations for plast gears (abstract) Improved method for estimating the fatigue life of bevel and hypoid gears (abstract) Michigan Tool enters gear-hobe field	7-	1 52	and engines Timely subjects discussed at SAE Tractor Production meeting	12-1	1 50
Fahrica			the fatigue life of bevel and	7-	1 37			31
Upholstery requires 700 operations at Pisher Body-Pontiac Div.	7-1	32	Michigan Tool enters gear-hobbe	P 9-		Setallurgy Cladding of molybdenum for ser vice in air at elevated terps	r-	
FARM INCOME - See Business Condition	ons		Powder metallurgy for gear manu facture (abstract)	7-	1 50	vice in air at elevated terpe ature (abstract) Effects of steel quality on body design and fabrication Hard facing for impact (abstract) Powder metallurgy for gear manufacture (abstract)	11-15	5 41
Financial News - See also Company			facture (abstract) Precision gears and pinions for Ford's automatic transmission	10-1	5 34	body design and fabrication Hard facing for impact (abstract)	12-15	5 116
Listings Business Pulse, The (Guaranty Trust)	7-15	52	Government Agencies & Activities	10-1	5 142	manufacture (abstract)	7-1	1 30
Business Pulse, The (Guaranty Trust)	8-15	-	Defense contract awards Defense contract awards Facts that reflute alleged con-	11-1		Metals - See also Metallurgy		
Business Pulse, The (Guaranty Trust)	9-15	-	centration of defense contract	8 8-1		Metals - See also Metallurgy Aluminum-six per cent magnesiv wrought alloys for elevated- temperature service (abstract Cold spin-dimpling process for light alloy sheets (Bristo) of Rng.)	IM	5 31
Business Pulse, The (Guaranty Trust)	10-15	62	negotation Nationalization - a new Truman	7-1		Cold spin-dimpling process for	711-10	, ,
Business Pulse, The (Guaranty Trust)	11-15	54		8-1 7-1		Eng.) Diagram drawing showing use of iron and steel in a hay bales pive tons of magnesium in Convair B-36 airframe	8-15	5 41
Business Pulse, The (Guaranty Trust) How to protect yourself for	12-15	5 58	New defense facilities New defense facilities	9-1 10-1 12-1 8-1	5 150 5 122 5 92	iron and steel in a hay baler Five tons of magnesium in	12-1	
renegotation	7-15	32	doctrine New defense facilities New defense facilities New defense facilities New defense facilities New defense plants	8-1	5 116	THEALLSINGTON OF MACHIBICS!	10-1	1 5
New England executives confer on renegotation Renegotation needs salesmanship	12-1		н			properties of ductile cast iron (abstract)	11-15	5 4
Finishes	.0-1:	40	HEAT TREATMENT - See Metallurgy & Production Methods			titanium alloys	11-	1 1
Automotive finishes (abstract)	12-1		1			properties of ductile cast iron (abstract) Machining problems with titanium alloys Motals - analysis of market Metals - analysis of market	7-1 8-1 9-1	1 41 1 31 1 51 5 41 1 5
new painting process (Ransburg Electro-Coating Hot spraying of lacquer feasible for aircraft	9-	-	ILLUMINATION - See Production Methods & Highways			Metals - analysis of market Metals - analysis of market	11-1	1 5
for aircraft K-P hot spray lacquer	9-	42	Inspection - See also Production	0		Met lbond process for joining metal with adhesives	12-1	

Betale - (Continued)	I seus	Page		New Production & Plant	Issue	Page	New Production & Plant	Issue	Pe	
Betals - (Continued) alloys output (Carpenter Steel)	7-15	146		New Production & Plant Equipment (Continued) Engine lathe (R. K. LoBlond) Finishing grinder (Hammond Machinery)	10-1	56	New Production & Plant Equipment (Continued) Eng.) Tumbling machine (Roto- Finish) Turret lathe (G.M.Dishl	10-1		58
higher tempertaures	9-1	58		Finishing grinder (Hammond Wachinery)	10-15	68 52	Tumbling machine (Roto- Finish)	9-1		68
Titanium industry expands	11-15	138					Turret lathe (G. M. Diehl	12-15		83
Van der Horst discloses new iron plating method - Vander- loy M				Forming machine (Motch & Merryweather)	9-1	52	Mach.) Turret lathe (Potter &	11-1		56
loy M	12-1	35		Gap-type welding press (E.W.Bliss) Geared head lathes (British	12-1	54	Johnston) Turret lathe (Simmons	9-15		52
Military Equipment & Activities Alodizing Navy Cutless fighters				Industries)	12-15	68	Machine Tool) Two-point press (Cleveland Punch & Shear) Universal hydraulic grinder			
against corrosion (Chance				Gear shaver (National Broach & Machine)	8-1	55	Punch & Shear) Universal hydraulic grinder	7-1		68
Vought) Chrysler's new tank plant at Newark, Del. Defense contract awards Defense contract awards Defense contract awards GMC's new H-125 ellitary truck has eight-speed hydramatic Influence of defense program discussed by Body Engineers Latest jet engines displayed at Latest warplace designs Military dumn bodies (abstract)	8-1	38		& Machine) Grinder (Gardner Machine) Grinding machine (Norton) Hardness testing machine (Steel City Testing Mach.) Heat treat unit (Ipsen	12-15	60	(Landia Tool)	7-1		66
Newark, Del. Defense contract awards	12-15 10-15	32 142		Hardness testing machine	10-1	36	Willing) Vertical drilling machine (National Automatic Tool) Wet blast machine (American	8-15		54
Defense contract awards	11-15	112		Heat treat unit (Ipsen Industries)	8-15	62	(National Automatic Tool)	12-15		66
has eight-speed hydramatic	8-1	61		Honing machine (Micromatic	11 18		*heelabrator & Equip.) Work stations (Coleman-	10-15		68
discussed by Body Engineers	12-1	52		Hone) Honing unit (Micromatic Hone)	8-1	55 56	work stations (Coleman- Pettersen)	9-1		70
Paris Aviation Show	7-15	45		Honing unit (Wicromatic Hone) Horizontal drilling and tapping machine (Kaukauna Mach.) Hydraulic grinding machine (Cincinnati Grinders)	11-15	64	NET PRODUCTS			
Latest warplane designs Wilitary dump bodies (abstract)	12-1	40 60		Hydraulic grinding machine (Cincinnati Grinders)	7-1	58	New Products			
Wilitary dump bodies (abstract) Wilitary vehicle developments disclosed at GAE Prench Lick				Hydraulic metalworking equip- ment (Banly Machine) Hydraulic press (Clearing	10-15	56	New Products Absorption Beta gage (Tracerlab)	10-15		70
Military wheeled transport whicle requirements (abstract) Modification of standard earth- moving equipment for military	7-1	32		Hydraulic press (Clearing Machine)	8-15	36		11-15		58
vehicle requirements (abstract)	7-1	35		Rydraulic press (Lake Erie	9-15		Electric) Air controller for brakes (Warner Electric Brake) Air friction clutch (Sales			
modification of standard earth- moving equipment for military				Eng.) Hydraulic surface grinder (British Industries)			Air friction clutch (Sales	11-1		62
requirements (abstract) New defense facilities	10-1 11-15	104 142			12-15		Service Mach.) Air-fuel control (Leeds &	10-1		66
New method for finishing heads	11-1	37		Bros.) Induction forge heater (Ajaz	7-1			7-15		78
requirements (abstract) New defense facilities New method for finishing heads of aluminum pistons Supersonic rocket missiles tested at secret station	9-1	34			9-1	52 56	Air grinder (Ingersoll-Rand) Air operated screw drivers (Ingersoll-Rand) Air sander (Sundstrand Mach.	10-1		70
Vast automotive plant expansion for defense work	10-15	32		Induction furnace (Loftus Eng. Jet blade grinder (Ex-Cell-O) Jet blade grinder (Production	8-1	56	Air sander (Sundstrand Mach.	10-1		
	10-15	32			12-1	56	Tool) Air valve (C.B.Hunt)	8-15	į	104
Motor Boats - See Engines.				Jolt-squeeze-strip molding machine. (hPO, Inc.) Lathes (American Pullmax)	9-18	54	Tool) Air valve (C. B. Hunt) Alloy grid (Rolock) Alueinum etchant (Diversey) Analysis unit (North American Philips) Arc extinguishing motor starter (Clark Controller)	10-15		88
N							Analysis unit (North Ameri-	11-15		72
NET DEVELOPMENTS				(J. N. Pauver) Machine for roller coating (Union Tool)	8-1		Arc extinguishing motor	8-1		92
New Production & Plant			-	(Union Tool)	11-15	64	Atmosphere generator (Hevi	12-15		86
New Production a Plant Equipment Transport of the Production of th	10-1	60		(Marvin Wachine) Warform control unit (Loewy	7-1	58	Atmosphere generator (Hevi Buty Electric) Ball bearings (Winisture Precision Bearings) Battery charger (Yale & Towns			
Automatic gear loader (National	11-15	64		Construction)	9-11	50	Battery charger (Yale &	10-1		72
Broach & Mach.) Automatic grinder (Landis Tool)	10-1	62 58		Mechanical press (Minster Machine)	10-1	58	Binaural amplifier (Magne-	7-15	-	78
Automatic screw machine (Carl Hirschmann)	10-1	58		Willing machine (Austin Industrial)	12-11	80	cord) Carbide drill (Raymac Mfg.) Carbon determinator (Labora	11-11	å	58 80
Hirschmann) Automatic transfer machine		60		Willing machine (Ekstrom,	8-11	62 58	Carbon determinator (Labora	10-15		94
(Greenise Bros.) Bandsaw (DoALL) Bandsawing machine (DoALL) Bar machine (Cleveland Automatic	8-1	56		Willing machine (Ex-Cell-G)	7-	1 58	tory Equip.) Circuit breaker (Westing-	7-15	-	88
Bar machine (Cleveland Automatic	8-15			Merryweather) Multi-operation machines	7-	60	house) Cold extrusion (Mulline			
Mach.) Barrel plating machine (Frederic B, Stevens) Boring and turning mill			8		11-1	5 55	Mfg.) Cold extrusion lubricant	11-15		78
(Frederic B. Stevens) Boring and turning mill (Baldwin-Lime-Hamilton) Boring and turning mills (Cosa	10-15		1	Multiple spindle drilling .machine (Sibley Machine) Polishing machine (Murray-	11-	1 56	(Penna. Salt) Collet chuck (Eric S.	8-1		64
(Baldwin-Lima-Hamilton) Boring and turning mills (Cosa	9-1			Positioner power attachment	12-	1 54	Johnson) Contour cutting tool (Composit Die Supply) Copying machine (Charles	8-1		60
	12-18	83		(Aronson Machine) Power press brake (Columbia	9-1	5 148	(Composit Die Supply) Copying machine (Charles	10-1	8	72
Boring and turning mills (Giddings & Lewis) Boring machine (Snyder Tool	7-15	64		Power press brake (Columbia Machinery)	11-1	5 56	Bruning) Copying machine (Ozalid) Copying machine (Charles Bruning)	10-15	1	72 85
a Engr.) Broaching fixture (Lapointe Machine Tool) Broaching machine (Colonial	7-1	66		Machinery) Presses (Thunder Bay Mfg.) Profile grinder (Cosa Corp.) Profiler (Morey Machinery) Propeller hub grinder (Norton) Punch press (Whitney Metal Tool)	12-	1 55 1 67	Copying machines (Charles	10-1		52
Machine Tool)	11-15	36		Profiler (Morey Machinery) Propeller bub grinder (Norton)	12-1	5 72	Corresion inhibitor (Gulf	10-15	-	88
	8-1						Countershaft drive (Speed		-	
Chain conveyor (Southern Eng.) Chain drive (Norse Chain) Circle shear and flanger	9-15 7-1	54 68		Punch presses (Menco Mfg.) Punch presses (Wales-Strippit Redial arm drills (Ekstrom,	9-	1 67	Selector) Die haufs (Jones & Lamson) Dies and die holders (Pratt & Whitney) Dies and punches (Allied Products) Die steel (Heppenstall) Differential converter (Minneapolis-Honeyeell) Disk-tvoe magnetic brake	10-		126
(Niagara Machine & Tool) Cold rolling mill (Loswy Rolling	10-1	60		Radial arm drills (Ekstrom,	11-1		Dies and die holders (Pratt & Whitney)	11-	1	62
Cold rolling mill (Lossy Rolling Mill)	12-15	74		Carlson) Relief grinder (Western Aero) Right-angle lathe chuck (E. Horton & Son) Riveting machine (Tomkins-	10-	1 60	Dies and punches (Allied Products)	10-1	5	78 70
Mill) Contour sawing machine (DoALL) Conveyor-feeder (May-Fran Eng.) Copying lathe (N. E. B. Machine Tools)	9-15	. 60		(E. Horton & Son)	12-	1 56	Die steel (Heppenstall) Differential converter	10-1		
Copying lathe (H. E. B. Machine	12-15			Johnson)	7-1	5 62	(Minneapolis-Honeywell)	7-	1	80
Tools) Crankshaft belancing machine (Tinius Olson)	10-11			Router and skin mill (Onerud Machine)	10-1	8 56	Disk-type magnetic brake (Dings Brakes) Distributor points (Holley	12-1	8	154
Cutting machine (American	19.1			Saddle type turret lathe	2-1		Carburetor)	11-1	5	154 57 58
Die casting machine (DCMT Sales Die casting machine (Kux	9-15	56 148		Saw table mounting (DoAll)	9-1	1 55	Drum sander (Carborundum)	11-1	8	58
Die casting machine (Aux Machine)	10-10	5 54		Machine) Saddle type turret lathe (Warrer & Heasey) Saw table mounting (BoAll) Spot welder (Sciaky Bros.) Stamping press feed (Producto Machine) Surface grinder (Dlanckard	9.		Carburetor; Drus handler (Yale & Towne) Drum sander (Carborundum) Drying unit (Fostoria Press Steel) Dumi-channel oscilloscope	10-	1	74
Machine) Die casting machine (Miller- Taylor Tool)	10-10	72		any smea By runes (minutes				11-1	.5	152
Direct fired heater (Brown Fintube)	8-1	58		Table conveyor (Rapids Standa	rd) 9-1		(Managa-Whitney)	12-1		90
Double clinchor machines	11-1	5 64		Tapping machine (Ettco Tool) Tapping machine (National Aut	T-:			10-1	8	78
Double spindle grinder				matic Tool) Testing machine (Baldwin-Lims	8-1		Equip.) Electrode stabilizer (Fred C. Archer)	11-		68
Couble spindle grinder (Gardner Machine) Drill grinder (Dumore) Drilling and tapping machines (Edlund Machinery) Drilling machine (LeMaire Tool	12-	1 60		machine) Table conveyor (Rapids Standa Tapping machine (Etteo Tool) Tapping machine (National Aut matic Tool) Testing machine (Baldwin-Linz Hamilton) Testing machine (Steel City	8-	15 62	Electronic drive (Reliance			
(Edlund Machinery)	8-15	5 56		Testing Mach.)	9-	-1 51	Electric) Electronic gaging head (Sheffield)	10-1		78
Drilling machine (Lemaire Tool	7-1	5 76		Hirschmann)	9-		(Sheffield) Electronic surge comparison	11-		62
& Mfg.) Drilling machine (National Automatic Tool)	9-1	5 52		Hirachmann) Transfer machine (Cross) Transfer machine (Cross) Transfer machine for crank- shafts (Snyder Tool & Eng.) Transfer sachine (Snyder Tool	12	1 54	Electronic surge comparison tester (Westinghouse) End mills (Pratt & Whitney) Engine oil (Texaco)	12-1	5	138
Drilling machine (Mational	12-			shafts (Snyder Tool & Eng.)	7-	15 70	Engine oil (Texaco)	8-	1	60
Drilling machines (Taylor Dynamometer & Mach.) Electron drill (Eloa Corp.)				Transfer sachine (Snyder Too)	12-	15 60	Emplosion-proof motors (U.S. Electrical Motors) Filler-metal welding (G.E. Filter cloth (Union Carbide	10-	1	68
Electron drill (Eloa Corp.)	10-1	5 52		& Eng.) Traveling head grinder (Merci	ITY		Pilter cloth (Union Carbide	1-	1.0	12

AUTOMOTIVE INDUSTRIES—INDEX

** Products - (Continued) & Carbon) lux and soldering (McCord) com for fires (National Poss)	12-15	Page 148	Storage battery (Electric	Issue	Page	Band tool slotting is a time saver (DoALL) 7-15 Drill press converted into brushing machine (Curtiss- Wright) 12-15	Pa
a Carbon) lux and soldering (McCord)	9-1 8-1	80	Storage battery (Electric Storage)	8-15 10-15	64 51	saver (DoALL) 7-15	
oum for fires (Mational Foun) 'ork lift truck (Buda) 'ork lift truck (Clark Equip.) 'ork-lift truck (Clark Equip.)	9-15 7-15	68	Steam jet cleaner (Living-	10-15	94	brushing machine (Curtiss- Wright) 12-15	
ork-lift truck (Clark Equip.)	8-1	85 62	stone Eng.) Strain gage (Baldwin-Lima, Hamilton)	-		Flootrode tinning tachnique	
ork truck clamp attachment (Yale & Towne) ork-truck platform adapter	10-1	64	Hamilton) Strip chart recorder (Baldwin- Lima-Hamilton)	7-15	86	(Mallory) 7-15 Electrostatic atomization -	1
	12-1	57	Lima-Hamilton) Strong waterproof light fabric (U.S.Rubber)	8-1	64	a new painting processing) 9-1 Heat exchanger setup cools cutting oil (Young	
ork trucks (Barret-Cravens) ork trucks (Townotor) uel pressure regulator	8-15	124 68	(U.S. Rubber) Stud welder (KSM Products)	8-1 10-15	98 76	Heat exchanger setup cools cutting oil (Young	
uel pressure regulator			Surface comparator (Brush	10-15	86	Radiator) k-F hot spray lacquer New cold welding techniques (UR of England) New handling system for atocks of sheet metal stocks of sheet metal jet engine exhaust gas (NBD) 7-15 Sheet metal parts by new method (Consolidated Vuitee) Stretch forming with flexible was the formed the form	1
(Schneider Carburetor) age blocks (Pratt & Whitney) age blocks (Pratt & Whitney) rinding wheel bond (Chicago Wheel & Mfg.)	8-1 9-1	78 62	Surface grinder (DoALL)	8-15	108	New cold welding techniques	
asoline truck (Yale & Towne) rinding wheel bond (Chicago		84	Synchronous motor (Allis-	11-1	72	New handling system for	
theel & Mfg.)	7-1 10-15	62	Synthetic rubber catalyst (Dow Chemical) Temperature indicator (Tempilo) Testing machine (W.C. Dillon) Thermocouple pyrometer (Leeds	7-1	62	(Pratt & Whitney) 9-1	
eat exchangers (Kold-Hold Mfg.) eat-resistant alloy (Internations (ickel)	1	60	Temperature indicator (Tempilo)	8-1	114	New method for analysis of	
lickel] gh intensity illuminator (G.E.) se clamp (Central Equip.) drawlic diamond turner (Clevelar ndustrial Tool) drawlic valve (Denison Eng.) mersion beaters (G.E.) bloratory press (Wabash Metal) ithe attachment (Lodge &	12-1	57	Thermocouple pyrometer (Leeds	8-1	60	Sheet metal parts by new	
se clamp (central aquip.) draulic diamond turner (Clevelar	9-15		Timing relay (Square D)	9-15	63	Stretch forming with flexible	
ndustrial Tool) draulic valve (Denison Eng.)	7-1 9-1	70	Timing relay (Square D) Forque-indicating driver (Tru-Circle Products) Tote bin lift truck (Lewis-	7-1	62	Van der Horst discloses new	•
mersion heaters (G.E.)	12-15	86 98	Tote bin lift truck (Lewis-	9-1	T8 70	iron plating method - Vander- loy N 12-1	
the attachment (Lodge &	11-15		Shepard) Trolley hoist (Wright Hoist)	7-1	70		
hipley) ak detector (G.E.)	11-15	158 72	Tumbling compound (Tumb-L-Matic) Turret bearings (Howe & Fant) Two-way radio (Motorola) Universal tool holder (Kelvin	9-13	108	Anti-fouling spark plug de- veloped by Boeing 11-1 Compact electronic computer	
ak detector (G.E.) ft truck (Clark Equip.) ft truck, Diesel-powered Clark Equip.)		68	Two-way radio (Motorola)	9-15	108	Compact electronic computer	
Clark Equip.)	12-1	57 66	Syrtema)	9-15	64	(Northrop Aircraft) 7-1 Connecting rod end ID finished in new machine, the	ı
chine tool starter (Westinghous	e) 7-1 8-15	72 124	Variable speed drive (Reeves Pulley)	12-1	57	finished in new machine, the Micromatic Turret-Hone 12,1	
Clark Equip.) » pressure cylinder (Hanna Eng., chine tool starter (Westinghous- terial handling kit (Triometric terials handling equipment Mathews Conveyor) terials handling racks (Coleman	, 6-13		Voltage regulators (6.E.) Voltmeters and ammeters	7-15	88	finished in new machine, the Micromatic Turret-Hone 12-7 Fluid hydroformer converts 50 octaon maghts to 98-175 50 octaon maghts to 98-175 9-18 Hydrapower steering (Ross Gear & Tool) Michigan Tool enters gear-hobber field	
Mathews Conveyor) terials handling racks (Coleman	11-15	158	(Bristol)	7-18	86	(M. W. Kellogg) 9-15	3
derical adams of Chicago	12-15	156	Welding alloy (Eutectic Welding)	11-18	162	Gear & Tool) 10-15	5
remrail) easuring device (P.T. Griswold) chanical remote control Telefical	10-15 8-15	85 114	Welding positioner (Aronson) Woven wire sling (Cambridge	10-15	52	Michigan Tool enters gear- hobber field 9-1	
chanical remote control			Wire)	10-15	86	noover rivid New aluminum casting alloy for higher temperatures New automatic fuel control for J-57 turbojet engine (Hamilton Standard) New Automatic methods and alloy New Automatic methods and alloy New Automatic	
chanical shaft seal (Crane	11-1	62	New Products for Aircraft			New automatic fuel control	•
	9-15	76 63	New Products for Aircraft Aircraft paint (Chamberlain Aviation)	9-15	116	(Hamilton Standard) 11-15	5
tal coils (Enamelstrip) tal fasteners (Driv-Lok Pin) tal marking typewriter (Cadilla	10-1	72	Aircraft pushbuttons (Square D	7-15	144	New automatic machine winds generator armatures (Lewis	
tamp)	10-15	52	Dehydrator (Bowser) Edge-lighted panels (Sierra Products) Electrical actuators (Pacific	11-1	64	New automatic machine winds generator armatures (Lewis Welding) 10-1 New chemical bath "blasts"	1
tallizing guns (Metallizing	10-1	64	Products)	8-18	138	scale from forgings (Penna.	
crometer depth gages (E. S.	10-15	82		12-	59 64	scale from forgings (Penna. Salt Mfg.) New Dynetric balancing machine for engine and torque con-	1
illing cutter (Detroit Willing Cutter)	10-1	70	Engine mounting (Lord Mfg.) Filler cap (Ross & Amann) Flat type fasteners (Tinnerman Products) Fluid line identification	12-	104	for engine and torque con- verter 12-1	1
bile inspection unit (DoALL) storized tractor (Yale & Towne) ylon liner for bearings (Thomson	11-15 8-15	58 64	Plat type fasteners (Tinnerman	7-	86	Hew gage for Plying Bozcars	
lon liner for bearings (Thomson	0.10		Pluid line identification	12-	1 . 104	for engine and torque con- verter New gage for Plying Bozcars developed at Pairchild Air- craft No spark plug gaskets in 12-16	5
Industries) il cooler (Young Radiator) otical comparator (Jones &	9-15	64 62	Fuel tank filler cap (Gabb	11-		No spark plug gaskets in Chrysler Firepower engine Portable countersink tool,	1
	8-1	62	Fuel tank sealers (Winnesota	-	-	the Auto-Sink (Boeing Air-	
ptical gage (F.T.Griswold) scillating trough conveyor	12-15	154	Fluid line identification (w.H. Brady) Puel tank filler cap (Gabb Special Products) Fuel tank sealers (Minnesota Mining & Mf.,) Grease (Shell Oil) Grease (Shell Oil) Nigh noed pen recorder	8-1 7-1		plane) Swing type intake valves on aircooled race engine (Buterworth of English (Buterworth of English for engine eshaust systems (Nat'l Br. Standards) Fract Br. Standards Fract Br. Standards) Fract Br. Standards Fra	1
(Link-Belt)	7-1	82	Grease (Shell Oil)	7-1		aircooled race engine (Butterworth of Eng.) 7-	1
(Link-Beit) scillograph recording camera (Eastman Kodak) ackaging (Lord Mfg.) aint masks (Jas. H. Watthews)	10-1	74	urease (meir Ut) High speed pen recorder (Winnespolis-Hongywell) Hydraulic selector valves (General Controls) Jet dolly (Towsley Trucks) Manifold connection (Clifford	7-	1 85	Tests of ceramic coatings for	•
icksging (Lord Mig.) aint masks (Jas. H. Matthews)	7-15 9-15	82 63	(General Controls)	9-1	5 118 1 59	(Nat' 1 Br. Standards) 8-	1
hosphatizing compound (Kelite	10-15 11-15	90	manifold connection (Clifford	12-		light airplanes (Bonmartini	
lastic blowers (Westinghouse) lastic film tape (Winnesota	11-15	58	Mounting bases for equipment	9-1		of Italy) 8-1: 24,000 hp dynamometer for	
Mining & Mfg.) neumatic micrometer (Ateliers	8-1	62	(T.R. Finn) Plastic coating (Roscoe Turne: Aeronautical)	12-	1 59	24,000 hp dynamometer for testing turbo-jet engine 9-19 Van der Horst discloses new	5
de Normandie) ortable drill (Black & Decker)	8-15 11-15	108 152	Aeronautical)	7-1		Van der Horst discloses new iron plating method - Van- derloy M 12-	
		152	Aeronautical) Pneumatic control valve (Ade) Quick-disconnect fitting (Les Range and broadcast receiver (National Aeronautical) Rubber filled propeller (Hamilton Standard) Self-Starter (Eclipse-Pioneer Sideslip atability augmenter Control of the Control Self-Starter (National) Self-Starter (Reich (Nicro Self-Starter) Self-Starter (Reich (Nicro Starter) Starter analyzer (Klectronic	r) 8-1		der 109 = 12-	
Honeywell)	12-15	98 82	(National Aeronautical)	7-1	5 142	0	
Noneywell) ower truck (Elwell-Parker) ress loader (Magnaflux) adiator cleaner (Fram Corp.)	10-15	51	Rubber filled propeller (Hamilton Standard)	11-	1 64	ORGANIZATIONS - See Associations	
distor hose (Thermoid)	9-15	110	Self-starter (Eclipse-Pioneer) 12-	1 59	P	
eller valve (Andrews-Alderier) esin core solder (Kester Solder	12-1	64 57	(Northrop Aircraft)	12-	1 59	PAINTS - See Finishes, Color Trends	
adiator cleamer (Fram Corp.) adiator hose (Thermold) elief valve (Andrews-Alderfer) esin core solder (Kester Solder etaining nut (Waldes Kohinoor) olating clamp (Yale & Towne) ust proof coating (Detres) afety valve (General Controls)	8-1 8-1	68	Switch)	9-1	5 118		
ust proof coating (Detres)	7-15	138 92	Tube)	7-1	5 140	Products & New Developments	
aw band (DoALL) aw (R.C.S. Tool Sales) elenium rectifier welder	11-1	62	Sub-miniature relays (Allied Control)	8-1	5 130		
elenium rectifier welder			Supercharger control valve (Adel)	12	1 59	PISTONS - See New Products & New Developments	
(Westinghouse) elf-locking fastener (Townsend)	9-15 8-1	96	Temperature control system			Plant Changes New & Expansion	
(Westinghouse) elf-locking fastener (Townsend) ervice machine (Greer Hydraulic heet metal tester (J.Arthur	8) 11-18	162	(Barber-Coleman) Testing unit (Bprague Eng.) Thermoplastic tubing (Resistoflex) Wheel chock (Pyrene Wfg.) Wire harness clasp (Tinnerman	9-	15 115	Plant Changes New & Expansion Chrysler's new tank plant at Newark, Del. 12-1	8
	9-15	110	Thermoplastic tubing (Resistoflex)	8-	15 130 15 136	Dual-purpose plants for pre-	
helf-type truck (Market Porge) ilver clad steel (American	10-15		Wheel chock (Pyrene Mfg.)	8-		paredness 11- New defense facilities 7-1	5
Silver) implified axial face mill			Products)	9-	15 115	New defense facilities 9-1 New defense facilities 10-1	5
(Kennametal)	8-1	92 62	New Bethods			New defense facilities 11-1 New defense facilities 12-1 New defense plants 8-1	5
802 pollution analyzer (Leeds &	9-1		Aluminum cylinder blocks and heads formed by new method			Newark, Del. 12-1 Dual-purpose plants for pre- paredness New defense facilities 9-1 New defense facilities 10-1 New defense facilities 11-1 New defense facilities 11-1 New defense plants 12-1 New defense plants 12-1 Vast automotive plant expan- sion for defense sort	5
Specific standard taps (Detroit	11-15		(Alco)	12-		sion for defense work 10-1	8
Northrup) specific standard taps (Detroit Tap & Tool) spray gun (DeVilbiss) spray welding (#all Colmonoy) Spray welding (#all Colmonoy) Lima-Hamilton)	9-	82	automatic winding (Ford) Automatic machines produce strong, economical spinnings (United Specialties)	11-	15 92	Plastics - Sec also New Pro-	
Spray welding (#all Colmonoy) SR-4 pressure cells (Baldwin- Lima-Hamilton) Storage batteries (Willard Stora			strong, economical spinnings	1.9	.1	Plantics - See also New Pro- ducts & New Developments Design considerations for	
	7.	1 78	Automotive and aircraft seale	14	-1 44	plastic gears (abstract) 7- Plastics in the automotive	

AUTOMOTIVE INDUSTRIES—INDEX

July 1, to December 15, 1951'

Plastics - (Continued)	Issue		Production Methods - (Continued) Unique features of Pontiac's	saue	Page	Testing - (Continued)	Issue	Page
industries (abstract)	12-1	52	Unique features of Pontiac's new engineering building	10-1	32 .	Testing - (Continued) and development (abstract) Unique features of Pontiac's	11-1	45
Polishing - See Finishes & Pro- duction Methods			new engineering building Unit assembly of wings with 50,000-lb. fixture (Convair) 1 Upholstery requires 700	1-15	36	new engineering building	10-1	32
POLITICS - See Government Agencies			portion bir	7-1	32	TIN INDUSTRY - See Metals Tires		
Production Methods - See also Wold- ing & Cutting			Vauxhall plant tools up for	8-15	43	Low cost rubber compounds		
Production Methods - See also Weld- ing a Cutting Advanced sethods for machining jet engine parts (Pratt & Witney) Alodising May Cuttann fighters Alodising May Cuttann fighters Vought) Assembling and testing automatic	8-15	38	Versatile materials handling setup at large tractor plant (Caterpillar Tractor)	7-15	40	for high mileage tires (General Tire)	8-1	47
against corresion (Chance Yought)	8-1	38	*ide variety of universal joints on the production line (Universal Products)			Tool Design - See also New Products & New Developments Electroformed tooling (Bone		
Assembling and testing automatic transmissions at rate of one	9-1	38	(Universal Products)	7-1	42	ungrg.)	8-1	32
transmissions at rate of one per minute (Ford) Automatic machines produce strong, economical spinnings (United			RACING - See Contests			Tractors Big market ahead for LPG in farm equipment (abstract) Bulldoser power and dimen- sions (abstract)	7-1	98
Automatic materials handling at	12-1	44	Registrations - See also Aviation	n.		Bulldozer power and dimen- sions (abstract)	10-1	92
Ford's new parts plant Automotive and aircraft sealers Booming West Comst mireraft	12-1 10-1	36 42	Motor Boats, Motorcycles, For New Car Registrations, See Sale	es 11-15	51	Development in a universal propelling unit (abstract) Disgrams drawing showing use of iron and steel in a hay	10-1	51
industry Suilding a bus per hour (ACF-	11-15	42	1951 Vehicle registration	11-15	31	of iron and steel in a hay baler	12-1	
Brill) Building and testing Caterpillar	8-15	34	ROADS - See Highways		è	Farm tractors and implements		100
Diesel engines Checking Chrysler V-8 crankshaft	11-15	52				Heavy equipment for making	10-1	100
Chrysler's new tank plant at	7-1		Rubber & Synthetic Rubber Low cost rubber compounds for high mileage tires (General Tire)			(Caterpillar Tractor)	7-15	34
Newark, Del, Cold spin-dimpling process for light alloy sheets (Bristol	12-15	32		8-1	47	(abstract) Heavy equipment for making large road building machine (Caterpillar Tractor) Modification of standard ear moving equipment for milita requirements (abstract) Timely subjects discussed at	10-1	104
	8-15	41	S			Timely subjects discussed at SAE tractor production		
Connecting rod end ID finished in new machine, the Micromatic	12-1		Safety Fuel tank explosion suppression	11-1	44	moeting	10-1	50
Turet-Hone Reburing precision parts by set tumbling method DeStofs melf-contained produc- tion betup for V-8 engines Brill press converted into brushing machine (Curtiss- Resembles)	11-1	-	(abstract)	11-1	44	frailers Latest equipment in Frue- hauf trailer plant		
DeSoto's self-contained produc-	12-15	0.	SHOCK ABSORBERS - See New Pro- ducts & New Developments			Transmissions	8-1	34
Brill press converted into brushing machine (Curtiss-			Antiques to Hot Rods at second annual Motorama			Assembling and testing automatic transmissions at		
Bright) Electroformed tooling (Bone Eng.)	12-15 8-1		annual Motorama British Automobile Show pre- sents Austin "Seven" and other new models	12-15	47	rate of one per minute (Ford	9-1	38
Electroformed tooling (Bone Eng.) Forming problems with stainless steel sheet metal (North Ameri-		1	sents Austin "Seven" and other new models	11-15	35	missions (abstract) Automatic transmission de-	12-1	43
can Aviation) Fully demountable twin-hull	7-15	42	Pirst European machine tool show International Metal Sessions	10-1	39	velopments; Chronological history of	8-15	36
assembly buck for seaplanes (Consolidated Vultee) Heat exchanger setup cools cutting	8-15	44		10-15	50	Fewer aluminum parts in Ford automatic transmission		
oil (Young Radiator)	11-15	122	Largest Metal Show and Congress in history Latest British aircraft and	11-15	38	missions (abstract) Automatic transmission de- velopments; Chronological history of Fower aluminum parts in Ford automatic transmission (Warner Gear) GMC's new W-135 military truck has eight-speed hydra	10-1	44
road building machines (Cater-	7-15	34	Latest British aircraft and engines at Parnborough Show Latest jet engines displayed	10-15	42	matic Hydraulic torque converter	8-1	41
Hot apraying of lacquer feasible for aircraft	9-1		at Paris Aviation Show Paris '51 Automobile Show	7-15		for trucks has now braking	10-1	38
Heat exchanger setup cools cutting oil (Young Radiator) Heavy equipment for making large road building machines (Cater- pillar Tractor) Hot spraying of lacquer feasible for airceast continues the con- carried and the continues of the amufacturing methods (Lockheed) Improved packaging saven time and space (Pord)	8-1		Latest jet engines displayed at Paris Aviation Show Paris '51 Automobile Show emphasizes production Small cars dominate second Herlin Show	11-1	34	method (Twin Disc) Many close tolerance opera- tions machining Ford- Wercury automatic trans-		30
Improved packaging saves time and space (Ford) Industrial truck system at Bendix	8-1	18	SPARE PLUGS - See New Products	10-1	32	Mercury automatic trans- missions (Warner Gear)	7-15	46
Aviation plant Largest 140-ton Princess flying	9-11	44-	~ & New Developments			missions (Warner Gear) New features of GMC's Dual- Range Hydra-Matic trans- mission	12-15	36
boat nearly completed in England	10-1	40	SPRINGS - See Suspension			New machine balances engine and torque converter	12-13	-
Latest American methods employed	9-1	32	STEEL - See Metals			New machines for making tank		
Latest equipment in Pruebauf	8-1	34	Steering Hydrapower steering developed	10-15	39	torquatic transmissions (Allison) Pontiac offers Dual-Mange Hydra-Matic for 1952 Precision gears and pinions for Ford's automatic trans- mission	10-1	
Machining problems with titanium	11-1	46	Hydrapower steering developed by Ross Gear & Tool power steering for modern whiches Part	12-1	-	Hydra-Matic for 1952 Precision gears and pinions	12-1	49
alloys Making jet engine inducers an ex- acting process (Thompson Products Manual handling reduced on Waukes engine assembly lines	7-1	54	vehicles - Part I Power steering for modern vehicles - Part II	12-15		mission Precision machining operation	10-15	5 54
engine assembly lines Many close-tolerance operations	7-1	1 46	STREAMLINING - See Design			on automatic transmissions at Ford's Cincinnati plant	8-1	42
machining Ford-Mercury automatic	7-13	5 46	SUPERCHARGERS - See New Products			Transportation By Air		4.0
Metlbond process for joining meta and adhesives New automatic machine winds	12-1	5 48	& New Developments Suspension Systems			Britain's nationalized trans port operated at huge loss and leaves trail of wide-	8-	
New automatic machine winds generator armatures (Lewis Welding)	10-	1 54	Modern leaf spring design (Standard Steel Spring)	12-15	38		9-15	5 45
Weiding) New machine balances engine and torque converter at Chrysler	12-		SYNTHETIC RUBBER - See Rubber			TransportRussia's achilles' heel? Transportation, fuels and engines diacussed at three National SAE Meetings	9-15	3 39
Ner machines for making tank to quatic transmissions (Allison New method for finishing heads of	10-		T			engines discussed at three		
	11-		Tanks			TRUCK ENGINES - See Engines	12-1	1 40
New time saving machines at Ryan Aeronautical Co.	10-	1 48	Chrysler's new tank plant at Newark, Del.	12-15	32	Trucking Britain's nationalized		
aquantum piatons New time naving machines at Ryan Aeronautical Co. Power flexibility for aircraft production (Bouglas) Precision gears and pinions for Ford's automatic transmissions	8-	1 49	Testing - See also New Products & Production Wethods Building and testing Cater- pillar Diesel ongines IMC a Proving Ground at Phoenia			Britain's nationalized transport operated at huge loss and leaves trail of		
Precision gears and pinions for Ford's automatic transmissions	10-1	5 34	Building and testing Cater-	11-11	5 52	loss and leaves trail of widespread discontent	9-15	5 45
automatic transmissions at Ford'	8 8-	1 42	INC a Proving Ground at Phoenix Improved method for estimating	11-1		Trucks		
Cincinnati plant Production highlights in making turbine parts (Wright)	9-	-	Improved mathed for estimation			GMC's new M-135 military truck has eight-speed hydramatic		
turbine parts (Wright) Recent sandwich construction de- velopments (abstract)	11-		the fatigue life of bevel and hypoid gears (abstract) NBE research on basic nature of detonation	7-1		Hydraulic torque converter	8-1	1 41
velopments (abstract) Research that produced world's first turboprop semplane			Of detonation Supersonic rocket missiles	10-	37	Hydraulic torque converter for trucks has new braking method (Twin Disc) Lighter wehicles for more	10-	
Shoet metal parts by new method	11-1		Supersonic rocket missiles tested at secret station Tests of ceramic coatings for engine exhaust systems (N.B.S	3 8-	1 36	payload More powerful engines for trucks (abstract)	8-1	
(Consolidated Vultee) Special six-press setup stamps	8-	1 40	Tests prove value of ceramic	11-		trucks (abstract)	12-1	1 72
hearing retainers faster (Olds- mobile) Stretch forming with flexible	9-	1 62	24,000 hp dynamometer for testing turbo-jet engine Trends in Air Force research	9-1				
equipment (Northrop)	7-1	15 38	Trends in Air Force research			UNIONS - See Associations		

Isane Page

Innue Page

Wheels for world's fastest
New cold welding techniques
(G. E. of England)

8-15

41

Wheels for world's fastest
atratosphere jet bomber
(Goodrich)

8-1 36

ZINC INDUSTRY - See Metals

Index of AUTHORS Contributing to AUTOMOTIVE INDUSTRIES

insworth, Marcus	Innue	Page	Corner, Eugene S.	Insue	Page	Gilmore, Forrest K.	Isane	
1951 Vehicle registration will	11-15	51	LPG versus gasoline and Diesel fuel (abstract)	7-1	48	LPG development (abstract)	7-1	41
ldem, R. C. LPG development (abstract)	7-1	49	Cox. Darwin S. Automatic machines produce			Glidewell, J. E. More powerful engines for trucks (abstract)	12-1	7
very, Howard S. Hard facing for impact (abstract)		000	strong, economical spinnings	12-1	44	Gray, R. B. Farm tractors and implements		
B	11-15	90	Custer, James R. Big cheaters create little cheaters	11-1	32	(abstract)	10-1	10
echtol, R. E.			Military vehicle developments a			Grube, K Aluminum-six per cent magnesium		
Pully demountable twin-bull assembly buck for scaplanes	8-15	46	Meeting Nationalization - a new Truman	7-1	32	wrought alloys for elevated- temperature service (abstract)		3
erg, E. M. LPG versus gasoline and Diesel			doctrine	8-15	32	Gwimn, J. M., JR. Military dump bodies (abstract)		
PG versus gasoline and Diesel fuel (abstract)	7-1	48					12-1	6
ericke, William F.			Duckworth, J. B. Effects of combustion chamber			II II		
etals - analysis of market totals - analysis of market	7-1	39	deposits on octane requirement and engine power output			Special six-press setup stamps		
letals - analysis of market	9-1	56	(abstract)	7-1	. 38	bearing retainers faster	9-1	
ctals - analysis of market	10-15	49	B 1 B					
etals - analysis of market letals - analysis of market	11-1	54 50	Possible mechanisms by which			Mayens, Dr. C. C. Metlbond process for joining		
radley, W. F.			combustion chamber deposits accumulate and influence			metal with adhesives	12-15	4
Britain's nationalized transport operated at huge loss and leaves			knocks (abstract)	7-1	106	Hubbell, Wilson G. Tests prove value of ceramic		
trail of widespread discontent	9-15	45	E			coatings	11-1	4
irst European machine tool show ord adds luxury model, the Comete,	10-1	39	Eastwood, L. W.			Humphreys, I. S.		
to line in France argest flying boat nearly com-	9-15	37	Aluminum-six per cent magnesium wrought alloys for elevated-			Humphreys, I. S. Humphreys constant-compression engine (abstract)	12-1	
pleted in England Atest British aircraft and engines	10-1	40	temperature service (abstract)	11-15	39	Hunter Holland		
at Parnborough Show	10-15	42	Echols, L. S. Discussion of Humphreys constant			TransportRussia's achilles' heel?	9-15	
atest jet engines displayed at Paris Aviation Show echanical features of Spain's	7-15	45	compression engine (abstract)	12-1	43		0 10	
new Pegaso car ew Austin model presented at	11-15	32	F			Hutchinson, G. E. Titanium industry expands		
British Automobile Show	11-15	35	Fannin, Ernest Big market shead for LPG in			(abstract)	11-15	1
ew record set in French 24-hour race at Le Mans	8-15	112	farm equipment (abstract)	7-1	98	1		
roduction emphasized at '51 Paris Automobile Show	11-1	34	Plinn, Richard A.			Inreeli, Jack Fuel tank explosion suppression	0	
tolls-Royce develops heavy-duty Diesels	8-15	51	Interrelation of mechanical properties of ductile cast		***	(abstract)	11-1	
Spain plans greater automobile production facilities	10-15	40		11-15	40	J		
Swing type intake valves Vauxhall announces new cars for	7-1	45	Folger, D. B. Bulldozer power and dimensions	10-1		Jackson, Robert T. American sports cars win Watkins Glen Grand Priz		
1952	9-15	46	(abstract)	10-1	92		10-15	
canete, A. M. Chrome plated rings and the wear problem (abstract)			G			Jaffee, R. I. Cladding of molybdenum for		
problem (abstract)	9-15	136	Geschelia, Joseph Automatic materials handling at			service in air at elevated temperature (abstract)	11-15	
roadley, Peter R. Progress report on the coal-burning			Ford's new parts plant DeSoto's self-contained produc-	12-1	36		11-19	
gas turbine	10-1	47	tion setup for V-8 engines Fewer aluminum parts in Ford	12-15	43	Aluminum cylinder blocks and		
uckart, W. L.			automatic transmission '52 Packard features Easamatic	10-1	44	heads formed by new method	12-15	
ladding of molybdenum for service in air at elevated temperature			power braking	11-1	40	K		
(abstract)	11-15	41	Latest emerican methods employed by Renault in France	9-1	32	Kay, R. Raymond		
ckley, Frederick B.			Making jet engine inducers an	7-1	54	Antiques to Hot Rods at second annual Motorams	12-15	
rogress report on the coal-burningas turbine	10-1	47	many close-tolerance operations	1-1	34	Booming West Coast sircraft industry	11-15	
C		-	in machining Ford-Mercury automatic transmissions	7-15	46	SAE National Aeronautic	11-1	
			New machine balances engine and torque converter	12-1	32		**-*	
idwell, John A. Hodification of standard earth-			New machines for making tank			Kelly, C. K. Automatic and hydraulic trans-		
moving equipment for military requirements (abstract)	10-1	104	torquatic transmissions Observations	9-15	53 124	missions (abstract)	12-1	
	10-1	104	Observations Observations	10-1	80 106	Killiam, D. B. Automotive finishes (abstract)		
ill, Col. William A. Hilitary wheeled transport vehicle			Observations	12-15	126		12-1	
requirements (abstract)	7-1	35	Observations in Europe Precision gears and pinions	8-15	102	Kraft, R. Tayne Interrelation of mechanical		
armichael, E. P.			for Ford's automatic trans- mission	10-15	34	properties of ductile cast	** **	
etlbond process for joining metal and adhesives	12-15	48	Notana fortuna of Bookings	10-1	32	iron (abstract)	11-15	-
base, Herbert			new engineering building Vauxhall plant tools up for new model					
Deburring precision parts by wet tumbling method	11-1	51	Versatile materials hand-	8-15	43	L		
olenan. Fells			ling setup at large	7-15	40			
Improved method for estimating the			Wide variety of universal joints on the production			Lynch, D. W. Fowder metallurgy for gear		
fatigue life of bevel and hypoid		37	line	7-1	42	manufacture (abstract)	7-1	

	Issue	Page	Petersen, Alfred H.	Issue	Page	T	Insue	Page
MacNey, Thomas			How airframe design trends affect manufacturing methods	8-1	52			
Assembling and tenting automatic			mendiacrating merhods	9-7	34	Tucker, Paul W. LPG development (abstract)	7-1	49
transmissions at rate of one			Peterson, Roy E.			the deserobases (suscisce)	1-4	40
per minute	9-1	38	Small gas turbine that may be			W		
Building a bus per hour	8-15	34	started by hand	9-15	34			
Gear makers hold annual meeting						Weignad, A. J.		
and elect officers	7-1	50	Putt, Maj. Gen. B. L. (USAF)			Chrome plated rings and the		
Largest Metal Show and Congress			Trends in Air Porce research			wear problem (abstract)	9-15	136
in history	11-15	38	and development (abstract)	11-1	45			
Precision machining operations			R			Teil, Richard S.		
on automatic transmissions at Ford's Cincinnati plant		40	n n			Small cars dominate second	10.1	- 00
bold a cluciumeri bisur	8-1	42	Seiners, N. M.			Berlin Show	10-1	32
Martin, J. S.			Cummins experimental high speed			Temple, E. L.		
Bulldozer power and dimensions			Diesel engine "Jax" (abstract)	7-1	102	Titanium industry expands		
(abstract)	10-1	92	Turbosupercharging of high-speed	9-15	33	(abstract)	11-15	138
(/			Diesel engine (abstract)	8-19		,,		
McLarren, Robert			Rosning, Martin			Westrate, Leonard		
Airbriefa	7-15	58	Development in a universal pro-			Chrysler looks ahead	12-1	34
Airbriefs	8-15	58	pelling unit (abstract)	10-1	51	Vast automotive plant ex-		
Airbriefs	9-15	58	bearing and familiary			pansion for defense work	10-15	32
Airbriefs	10-15	58	Bowland, F. T.					
Airbriefs Airbriefs	11-15	64	Modern leaf spring design	12-15	38	Dual-purpose plants for		
Speeds up to 800 mph at 1951	12-15	0.6				preparedness	11-1	38
National Air Races	9-1	41	- S			prepareuness	77.8	
Supersonic rocket missiles tested		**	Saville, W. S.			Winkles, O. J.		
at secret station	9-1	34	Recent sandwich construction			Hot spraying of lacquer		
			developments (abstract)	11-1	**	feasible for aircraft	9-1	42
Miller, Sidney E.			#-1-144 B B					
Design factors concerning Diesel			Schmidt, R. C. Cummins experimental high-speed			Virshing, Ralph J.		
fuel injection equipment			Diesel engine "JSX" (abstract)	7-1	102	Thy automobile finishes lose		-
(abstract)	12-1	78	present auftire for (spartace)	1-1	102	luster (abstract)	8-1	70
Mitchell, E. D.			Schwab, T. D.			Boodson, T. T.		
Hot spraying of lacquer feasible			Turbosupercharging of high-speed			Powder metallurgy for gear		
for aircraft	9-1	42	Diesel engine (abstract)	9-15	33	manufacture (abstract)	7-1	50

N			Sheppard, George H.			XYZ		
			Band tool slotting is a time		-			
Neil, Edward S.			SEVER	7-15	60	Yellott, John I.		
Power steering for modern vehicle			Slater, John G.			Progress report on the		
Part I	12-1	46	Plastic in the automotive			coal-burning gas turbine	10-1	47
Power steering for modern vehicle		50	industries (abstract)	12-1	52	Zakarisa, A. D.		
Part II	12-15	50	Industrian (mostace)		02	Small gas turbine that may		
0			Smith, Kenneth G.			be started by hand	9-15	34
· ·			How to protect yourself for re-			to sear sed by many	0-10	
Orbangh, M. M.			negotiation	7-15	32	Zubryn, Emil		
Electroformed tooling	8-1	32				Mexican company organized		
	1		Snodgrass, T. J.			to build Fiat cars and		
p			Powder metallurgy for gear			trucks	12-1	101
			manufacture (abstract)	7-1	50			
Paul, W. H.			Stout, Ernest 6.			Zunstein, Fred R.		
Humphreys constant-compression			Research that produced world's			Design considerations		
engine (abstract)	12-1	41	first turboprop seaplane	11-15	48	for plastic gears (abstract		5

Index of COMPANIES Mentioned in AUTOMOTIVE INDUSTRIES

Α.	Insue	Page	American Silver Co., Inc.	lesue	Page	Cladding of molybdenum for	Issue	Page
ACF-Brill Motors Co. Building a bus per hour	8-15	34	Silver clad steel	10-15	72	service in air at elevated temperature (abstract)	11-15	41
Adel Div. General Metala Corp. Pneumatic control valve Supercharger control valve	11-1 12-1	64 59	American Theelabrator & Equipment Corp. Wet blast machine	10-15	68	Bendix Aviation Corp. Industrial truck system at Eclipse-Pioneer Div. plant	9-15	44
Ajax Electrothermic Corp. Induction forge heater	9-1	52	Andrews-Alderfer Processing Co., Inc. Relief valve	10-1	64	Bituminous Coal Research, Inc. Progress report on the coal- burning gas turbine	10-1	47
Alfa Roseo (Italy) 1000 engine (drawing)	8-15	44	Archer, Fred C., Inc. Electrode stabilizer	11-1	68	Black & Decker Mfg. Co., The Portable drill	11-15	152
Allied Control Co., Inc. Sub-miniature relays	8-15	130	Aronson Machine Co. Positioner power attachment Welding positioner	9-15 10-15	148	Blanchard Machine Co., The Surface grinder	8-1	55
Allied Products Corp., Richards Bros. Div. Dies and punches	10-15	78	Ateliers De Normandie (France) Pneumatic micrometer	8-15	108	Bliss, E. W., Co. Cap-type welding press	12-1	54
Allis-Chalmers Mfg. Co. Synchronous motor Allison Div. General Motors Corp.	11-1	72	Austin Motor Co., Ltd (England) New "Seven" model presented at British Attomobile Show	11-15	35	Boeing Airplane Co. Anti-fouling spark plug developed Portable countersink tool, the Auto-Sink	11-1	-
New machines for making tank torquatic transmissions	10-1	53	Austin Industrial Corp. Willing machine	12-15	80	Bone Engineering Corp. Electroformed tooling	8-1	-
Aluminum Co. of America Aluminum cylinder blocks and heads formed by new method American Boach Corp.	12-15	34	B Saldwin-Lima-Hamilton Corp. Boring and turning mill S8-4 pressure cells	9-1 7-1	52 78	Bonmartini, Count G., Co. (Italy) Track type landing gear for light airplanes	8-15	48
Design factors concerning Diesel fuel injection equipment (abstract)	12-1	78	Strain gage Strip chart recorder Testing machine	7-15 8-1 8-15	86 64	Bowner, Inc. Dehydrator	11-1	64
American Brake Shoe Co. Hard facing for impact (abstract)	11-15	90	Barber-Column Co. Temperature control system	12-1	59	Brady, W. M., Co. Fluid line identification	12-1	104
Interrelation of mechanical properties of ductile cast iron (abstract)	11-15	40	Barrett-Cravens Co. Fork trucks	8-15	124	Bristol Aeroplane Co. (England) Cold spin-dimpling process for light alloy sheets	8-15	41
American Pullens Co., Inc. Cutting machine Lathes	12-1 11-15		Battelle Hemorial Institute Aluminum-six per cent magnesium wrought alloys for elevated tomperature service (abstract)	11-15	39	Bristol Co., The, Instrument Div. Voltmeters and asseters	7-15	86

AUTOMOTIVE INDUSTRIES—INDEX

British Industries Corp. Geared head lathes Hydraulic surface grinder	12-15		Clifford Mfg. Co. Manifold connection	9-15	Page 116	Douglas Aircraft Co., Inc.	[sees	Page
	12-15 12-15	68 76				Douglas Aircraft Co., Ist. Hot spraying of lacquer feasible for aircraft Power flexibility for air- craft production	9-1	42
Brown Fintube Co., Inc. Direct fired heater	8-1	58	Coleman-Petterson Corp. Materials handling racks Work stations	12-15 9-1	156 70		8-1	49
Bruning, Charles, Co., Inc. Copying machine Copying machines	9-1 10-15	72 52	Colonial Breach Co. Breaching machine	8-1	58	Synthetic rubber oatalyst	7-1	82
Brush Sevelopment Co. Surface comparator			Columbia Machinery & Engrg. Corp. Power press brake	11-15	56	Briv-Lok Pin Co. Metal fasteners	10-1	72
	10-15	86	Composite Die Supply Co. Contour cutting tool	10-15	72	Drill grinder	10-1	60
Bulldozer power and dimensions (abstract)	10-1	92	Consolidated Valter Aircraft Corp Five tons of magnesium in B-36			Du Pent, E. I., De Nemours à Co., Inc.	19.1	60
Buda Co., The Fork lift truck	9-15	63	airframe Pully demountable twin-hull assembly buck for scaplance. Research that produced world's first turbogrop scaplance Recent sandwich construction developments (abatract) bhest netal parts by new method Unit assembly of wings with 50,000-10 fixture	10-1 8-15	52 46	Du Pent, E. I., De Nemours à Co., Inc. Autonotive finishes (abstract) Possible sechanisms by which combustion chamber deposits accumulate and influence knocks (abstract)	12-1	
mick Meter Div., General Meters Corp. Details of the XP-300	12-1 9-1	35	first turboprop seaplane Recent sandwich construction	11-15	48	knocks (abstract)	7-1	106
XP-300 engine	9-1	49	Sheet metal parts by new method Unit assembly of wings with	11-1 8-1	44	Eastman Eodah Co. Oscillograph recording camera	10-1	74
Swing type intake valves	7-1	45	50,000-1b fixture Continental Motors Corp.	11-15	36	Eclipse-Piesser Div., Bendix Aviation Corp. Self-starter		
•			Continental Motors Corp. aircooled engines feature starting at -65P	9-15	32		12-1	59
Cadillac Motor Car Co. Div., General Motors Corp. Special equipment in tank plant	8-15	49	Boring and turning mills Profile grinder	12-15 9-1	83 67	Edlund Bachinery Co., Siv. Bradley-Edlund Corp. Drilling and tapping machines	8-15	56
Cadillac Stamp Co. Metal marking typewriter	10-15	52	Crane Packing Co. Nechanical shaft seal	7-1	76	Matrom, Carloon & Co. Willing machine Radial arm drills	8-15 11-15	62
Cambridge Wire Cleth Co., The Woven wire sling	10-18	86		11-15	55	Electric Storage Battery Co. Storage battery	8-15	64
Carborandum Co., The Drum sander	11-15	58	Cross Co., The Multi-operation machines Transfer machine Transfer machine	9-1 12-1	51	Electronic Tube Corp. Dual-channel oscilloscope Strain analyzer		-
Corporator Steel Co., The Misch metal promotes hot workable alloys output	7-15	146	Cumins Engine Co., Inc. Experimental high speed Diesel engine, "JSX" (abstract) Turbosupercharging of high-speed Diesel engine (abstract)	7-1	102	Strain analyzer Elex Corp. Electron Drill	11-15 7-15	
Caterpillar Tractor Co. Building and testing Diesel engines			Turbosupercharging of high-speed Diesel engine (abstract)	9-15	34	Electron Drill Elvell-Parker Electric Co. Power truck	10-15	52
engines Heavy equipment for making	7-15		Curties-Wright Corp. Drill press converted into brush ing machine	12-15	40		9-1	83
engines Heavy equipment for making large road building machines Versatile materials handling setup at large tractor plant	7-15		D	14-10	***	E. N. A., S. A. (Spain) Nechanical features of new Pegaso car	11-15	3:
Central Equipment Co. Home clamp	9-15	108	Die casting machine	9-15	148	Enamel Strip Corp. Netal coils	9-15	61
Chamberlain Aviation, Inc. Aircraft paint	9-15	116	Banly Machine Specialties, Inc. Hydraulic metalworking equipment	10-15	56	Engis Equipment Co. Electric etcher	10-15	71
Chance Yought Aircraft Div., United Aircraft Corp. Alodizing Navy Cutlass fighters against corrosion	8-1	38	Beakin, J. Arthur, & Son Shoet metal tester Benison Engineering Co. Hydraulic valve	9-15	110	LPG versus gasoline and Diesel fuel (abstract)	7-1	41
Chicago Transail Corp. Naterials storage	10-15	85		9-1	74	Ettce Tool Co., Inc. Tapping machine	7-15	7
Chicago Theel & Mfg. Co. Grinding wheel bond	7-1		De Sote Beter Corp. Div., Chrysler Corp. Self-contained production setup for V-8 engines	12-15	42	Entectic Welding Alleys Corp. Welding alloy	11-15	16
Chrysler Corp. New tank plant at Newark, Del.	12-11	32	Betrex Corp. Rust proof coating	7-15	138	Ex-Cell-0 Corp. Jet blade grinder Willing machine	8-1 7-1	54
			Detroit Milling Cutter Co. Milling cutter	10-1	70	F		
Chrysler Div., Chrysler Corp. Checking V-8 crankshaft by air gaging machine Chrysler looks shead - 1952 modele Has larger six-cylinder engine	7-1		Setroit Tap & Tool Co. Specific standard tape	11-15	78	Pairchild Aircraft Div., Pairchild Engine à Airplane Curp., New gage for Flying Boxcars		
1952 models Has larger six-cylinder engine for 1952	12-1		Devilbing Co The	9-1			12-15	
New machine balances engine and torque converter No spark plug gaskets in Firepower engine	12-1		Spray gun Diehl, G. H., Machine Works, Inc. Turret lathe	-	82	Famein's Gas & Equipment Co. Big market ahead for LPG in farm equipment (abstract)	7-1	. 9
Pirepower engine Cincinnati Grinders, Inc. And	10-	1 54	Diesel Power, Inc. Aircooled lightweight Diesel for aircraft			Pasver, J. N., Co., Inc. Lubricant-measuring device	8-1	
Cincinnati Grinders, Inc. And Milling Machine Co. Hydraulic grinding machine New method for finishing heads of aluminum pistons	7-1	1 58		11-15	80	Fe'lows Gear Shaper Co. Design considerations for plastic gears (abstract)		
of aluminum pistons Vertical broach	8-1	1 37 5 54	Billon, S. C. & Co. Testing machine	8-15	114		7-1	5
Clark Controller Co., The Arc extinguishing motor starter	8-	1 92	Pinn-Fiat B. A. de Mexico Organized to build Fiat cars and trucks	12-1	101	P.I.A.T., S.A. (Italy) Italian "Jeep" in production the "Countryman"	12-1	4
Clark Equipment Co., Industrial Truck Biv.	7-1	5 85	Dings Brakes, Inc. Disk-type magnetic brake	12-15	154	Pins, T. B., & Co., Inc. Mounting bases for equipment	12-1	1 5
Clark Equipment Co., Industrial Truck Div. Fork lift truck Fork lift truck Lift truck Lift truck, Diesel-powered	8- 11- 12-	1 62 1 68 1 57	Biversey Corp. Aluminum etchant	10-15	90	Fisher Body-Postinc Div., General Meters Corp. Upholatery requires 700		
Clearing Machine Corp. Hydraulic press	8-1		Bandsaw	8-1	56 56	operations	7-1	1 3
Cleveland Automatic Machine Co.	-		Bandsawing machine Band tool slotting is a time- saver	7-15		Flexfirm Products Coated fabric	11-1	1 6
Classical Industrial Tool Corp.	8-1		saver Contour sawing machine Mobile inspection unit Saw band Saw table mounting	11-15	58	Ford Sotor Co. Armsture quality improved by automatic winding automatic automatic testing automatic transmissions at rate of one per sinute.	11-1	5 9
Hydraulic diamond turner	7-		Saw table mounting Surface grinder	9-15 8-15	108	Assembling and testing auto- matic transmissions at rate of one per minute	9-	
Cleveland Punch & Shear Works Co Two-point press	7-	1 68				or one her stunte	9-	3

AUTOMOTIVE INDUSTRIES-INDEX

	Issue			Innue				
Ford Motor Co (Continued) Automatic materials handling at new parts plant in Monroe, Mich. Pewer aluminum parts in automatic			Guaranty Trust Co. of New York Business Pulse, The Business Pulse, The	7-15	Fage 52	Kelvin Systems Corp. Universal tool holder	P-15	Page 54
new parts plant in Monroe, Mich. Fewer aluminum parts in automatic transmission	12-1	36	Business Pulse. The	8-15 9-15	52 48	Kenco Mfg. Co.		
improved packaging saves time and space	8-1	44	Business Pulse, The Business Pulse, The	10-15 11-15	62 54	Punch presses	9-1	67
Many close-tolerance operations machining Ford-Mercury automatic	8-1	51	Business Pulse, The Gulf Gil Corp.	12-15	58	Kennametal Inc. Simplified axial face mill	8-1	92
	7-15	46	Corrosion inhibitor	10-15	88	Kester Solder Co. Resin core solder	12-1	57
Precision gears and pinious for automatic transmission Precision machining operations on automatic transmissions at	10-15	34	н				****	3.
automatic transmissions at Cincinnati Plant	8-1	42	H. E. B. Machine Tools, Inc.			Kold-Hold Wfg. Co. Platecoil Biv. Heat exchangers	10-15	94
Ford Botor Co. , Ltd.			Copying lathe	12-15	83	Kux Bachine Co.		
Adds luxury model, the Comete, to line in France	9-15	37	Nall Scott Motor Div., ACF-Brill Motors Co. More powerful engines for trucks (abstract)			Die casting machine	10-15	54
Postoria Pressed Steel Corp. Drying unit	10-1	74	(abstract)	12-1	72			
Fram Corp. Radiator cleaner		.,	Banilton Standard Div., United Aircraft Corp.			Laboratory Equipment Corp. Carbon determinator	10-15	94
	11-15	68	United Aircraft Corp. New automatic fuel control for J-57 turbojet engine	11-15	148	Lake Eric Engineering Corp. Hydraulic press	9-15	50
Fruckanf Trailer Co. Latest equipment in Cedar Rapids plant		-	Rubber filled propeller	11-1	64	Lancia & Co. (Italy) Aurelia V-6 engine (drawing)		
plant G	8-1	34	Hamond Machinery Builders, Inc. Finishing grinder	10-15	68		7-15	36
Sabb Special Products Biv.			Hanna Engineering Works Low pressure cylinder	10-1	66	Landis Tool Co. Automatic grinder Universal hydraulic grinder	10-1 7-1	58
E. Horton & Son Co. Fuel tank filler cap	11-1	64	Hanson-Whitney Co. Dual thread comparator			LaPointe Machine Tool Co.		
Gardner Machine Co.				12-15	90	Broaching fixture	11-15	56
Double spindle grinder Grinder	12-1 12-15	54 68	Heli-Coil Corp. Small thread inserts	8-1	62	Lear, Inc. Quick-disconnect fitting	8-15	128
Gar Wood Industries, Inc. Wilitary dump hodies (abstract)	12-1	60	Reppensial Co., The Die Steel	10-15	70	Le Blond, R. K., Hachine Tool Co., The		
General Controls Co.			Mevi Buty Electric Co.			migric racine	10-1	56
Gate valve Hydraulic selector valves	8-15 9-15 7-15	118	Atmosphere generator	12-15	86	Leeds & Northrup Co. Air-fuel control	7-15	78
Safety valve General Electric Co.	7-15	92	Mirechmann, Carl, Co. Automatic screw machine Thread rolling machine	10-1 9-15	58 54	SO ₂ pollution analyzer Thermocouple pyrometer	9-1 8-1	72 60
Filler-metal welding Leak detector	11-1	72 72		5-12	34	Le Maire Tool & Mfg. Co. Drilling machine	7-15	76
Powder metallurgy for gear manu- facture (abstract)	7-1	50	Holcroft & Co. Forge furnace	10-15	52		-	10
General Electric Co.			Holley Carbureter Co: Distributor points	11-15	154	Levis-Shepard Products, Inc. Tote bin lift truck	9-1	78
Industrial Heating Dept. Innersion heaters	12-15	86	Horton, E. & Son Co., The Right-angle lathe chuck	12-1	56	Lewis Welding & Engrg. Corp. New automatic machine winds generator armatures	10-1	54
General Electric Co., Transformer & Allied Product Div.			Howe & Fant. Inc.			Link-Belt Co.		
Voltage regulators	7-15	88	Turret bearings	7-1	76	Oscillating trough conveyor	7-1	82
General Electric X-Ray Best. Highly intensity illuminator	12-1	57	Humphreys Investment Co. Humphreys constant-compression engine (abstract)	12-1	41	Livingstone Engineering Co. Steam jet cleaner	10-15	94
General Electric Co., Ltd. (England New cold welding techniques	8-15	41	Hunt, C. B., & Son, Inc. Air valve			Lockheed Aircraft Corp. How airframe design trends affect manufacturing methods		
			Air valve	8-15	104		8-1	52
GMC Truck & Coach Div., General Motors Corp. Latest improvements in two-stroke Diesels - 4-71 & G-71 New M-135 military truck has eight acond hydra.acit	9-1	46	Ingersoll-Rand Co.			Lodge & Shipley Co. Lathe attachment	11-15	158
New M-135 military truck has eight appead hydra-matic	8-1	41	Air grinder Air operated screw drivers	9-1 10-1	74 70	Locuy Rolling Will Div., Hydropress, Inc.		
			International Harvester Co.			Cold rolling mill	12-15	74
General Motors Corp. Automatic and hydraulic trans- missions (abstract)	12-1	43	Proving Ground at Phoenia	11-1	33	Loftes Engineering Corp. Induction furnace	11-15	56
ness	11-1	38	International Nickel Co., Inc. Heat-resistant alloy	8-1	60	Lord Wfg. Co. Engine mounting	11.1	
Le Sabre features light alloy construction New features of Dual-Range Hydra- Matic transmission	8-15	50	Ipsen Industries, Inc. Heat treat unit	8-15	62	Packaging	7-15	64 82
	12-15	36	J			м		
General Motors Corp., Research Laboratory *hy automobile finishes lose			Johnson, Eric S., Co. Collet chuck	8-1	60	Magnaflux Corp. Press loader	10-15	51
luster (abstract)	8-1	70	Jones & Lamson Machine Co.	0-1	00	Magnecord, Inc. Binaural amplifier	11-15	58
Ceneral Tire & Rubber Co. Low cost rubber compounds for high mileage tires			Die heads Optical comparator	10-1 8-1	64 62	Mailory, P. R., & Co., Inc. Electrode tipping technique		
	8-1	47	К				7-15	120
Giddings & Levis Machine Tool Co. Boring and turning mills	7-15	64	ESM Products, Inc. Stud welder	10-15	76	Locay Construction Co. Marform control unit	9-15	50
Gleason works Improved method for estimating the							3-13	00
Improved method for estimating the fatigue life of bevel and hypoid gears (abstract)	7-1	37	Kaiser Aluminum & Chemical Corp. Aluminum-six per cent magnesium wrought alloys for elevated-			Shelf-type truck	10-1	74
Goodrich, B. F., Co., The			temperature service (abstract) Kaiser-Frazer Corp.	11-15	39	Marvin Machine Products, Inc. Machine slotting attachment	7-1	58
Goodrich, B. F., Co., The Wheels for world's fastest strato- sphere jet bomber	8 - 1	36	Hot spray lacquer	8 - 1	48	Matthews Conveyer Co. Materials handling equipment	11-15	158
Greenlee Bros. & Co. Automatic transfer machine	11-1	60	Kaukauna Wachine Corp. Horizontal drilling and tapping			Matthews, Jas. H., & Co.	11-15	129
Indexing machine	7-1	60	machine	11-15	64	Paint masks	9-15	63
Greer Hydraulics, Inc. Service machine	11-15	162	Kelite Products, Inc. Phosphatizing compound	10-15	90	May-Fran Engineering, Inc. Conveyer-feeder	9-15	5 52
Griswold, F. T., Mfg. Co. Measuring device Optical gage	8-15	114	Kellogg, M. U., Co. Fluid hydroformer converts 55			Mc Cord Corp. Flux and soldering	9-1	80
Optical gage	8-15 12-15	114 154	octane naptha to 98-175	9-15	47			00

AUTOMOTIVE INDUSTRIES-INDEX

Sercedes-Benz (Dainler-Benz AG) (Germany)	Issue	Page	0	Issue	Page	Ross & Annua. Inc.	I same	Page
Starts production of two new passenger cars, the 300 and 220 models			Oakite Products, Inc. Steam gun	10-15	51	Filler cap	12-1	104
	8-15	96	Oldershile Die General Motors			Ross Gear & Tool Co. Hydrapower steering	10-15	39
ercury Engineering Corp. Traveling head grinder	10-1	58	Corp. Special six-press setup stamps bearing retainers faster	9-1	62	Rote-Finish Co. Tumbling machine	9-1	68
tetallizing Engineering Co., Inc. Metallizing guns	10-1	64	Olsen, Tinius, Testing Machine Co. Crankshaft balancing machine	10-15	88	Ryan Aeronautical Co. New time saving machines Tests prove value of ceramic	10-1	48
lichigam Tool Co. Enters gear-hobber field	9-1	50	Constant Machine Morks, Inc. Router and skin mill	10-15	56	Tests prove value of ceramic coatings	11-1	48
ticrematic Home Corp. Connecting Rod End ID finished in new machine, the Turret-Hone Honing machine			Oregon State College Humphreys constant-compression	10-13	90	S		
in new machine, the Turret-Hone Honing machine Honing unit	12-1 11-15 8-1	51 55 56	engine (abstract)	12-1	41	Sales Service Machine Tool Co. Air friction clutch	10-1	86
Micro Switch Div., Minneapolin- Moneywell Regulator Co. Snap action switches	9-15	118	Ozalid Div., General Amiliae & Film Corp. Copying machine	10-15	85	Saunders-Roe, Ltd. (England) Largest 140-ton Princess fly- ing boat nearly completed	10-1	40
Hiller - Taylor Tool Co. Dic casting machine	10-15	72	Partitio Attraction Corp.			Schneider Carbureter Co. Puel pressure regulator	9-1	78
Siniature Precision Bearings, Inc. Ball bearings			Pacific Airmotive Corp. Electrical actuators	12-1	59	Sciaky Bros. Spot welder	8-1	55
	10-1	72	Packard Motor Car Co. '52 models feature Easamatic power braking	11-1	40	Sheffield Corp., The Electronic gaging head	11-1	62
Himmeapolie-Homeywell Begulator Co. Differential convertor	7-1 7-1	80 85	Pennsylvania Salt Mfg. Co. Cold extrusion lubricant New chemical bath "blasts" scale	8-1	64			-
High apeed pen recorder Potentiometer	12-15	98	New chemical bath "blasts" scale from forgings	7-1	57	Shell 011 Co. Discussion of Humphreys con- constant compression engine (abstract)	12-1 7-15	43 140
Himmempolis-Holine Co. Development in a universal pro- pelling unit (abstract)	10-1	51	Perfect Circle Corp., The Chrome plated rings and the wear problem (abstract)	9-15	136	Grease Sibley Machine & Foundry Cprp. Multiple spindle drilling machine		
Nienesota Mining & Mfg. Co. Fuel tank sealers Plastic film tape	7-1 8-1	85 62	Phillips Petroleum Co. LPG development (abstract)	7-1	49	machine Sierra Products Co.	11-1	56
linster Bachine Co. Mechanical press			Pontiac Motor Div., General Motors			Edge-lighted panels	8-15	138
Borey Bachinery Co Inc.	10-1	58	Corp. Offers Dual-Range Hydra-Matic for 1952	12-1	49	Simmonds Aerocessories, Inc. Fuel tank explosion suppres- sion (abstract)	11-1	44
Profiler	12-15	72	Unique features of new engineering building	10-1	32	Sismons Machine Tool Corp. Turret lathe	9-15	52
Chain drive	7-1	66	Potter & Johnston Co. Turret lathe	11-1	56			
Notch & Merryweather Machry, Co. Forming machine Milling machine	9-1 7-1	52 60	Pratt & Whitney Div., Niles-Bensent-Fond Co. Dies and die holders End mills	11-1	62	Enyder Tool & Engrg. Co. Boring machine Transfer machine Transfer machine for crank-	7-1 12-15	60
Motorela, Inc. Two-way radio	9-15	108	End mills Gage blocks	7-15 8-1	138	snares	7-15	70
Hallias Hfg. Corp. Cold extrusion	11-15	78	Pratt & Thitney Aircraft Div., United Aircraft Corp. Advanced methods for machining jet engine parts			Solar Aircraft Co. Small gas turbine that may be started by hand	9-15	34
Burray-Way Corp. Polishing eschine	12-1	54	Advanced methods for machining jet engine parts	8-15	38 '	Southern Engineering Co., Inc. Chain conveyor	9-15	54
N N		-	New handling system for stocks of sheet metal 24,000 hp dynamometer for testing turbo-jet engine	9-15	64	Speed Selector, Inc. Countershaft drive	8-15	126
National Aeronautical Corp. Range and broadcast receiver	7-15	142	Production Machine Co. Jet blade grinder			Spo. Inc. Jolt-squeeze-atrip molding		
National Automatic Tool Co.	9-15	52		12-1	-	machine	9-15	54
Drilling machine Drilling machine Tapping machine Vertical drilling machine	12-1 8-15 12-15	56 62	Producto Machine Co., The Stamping press feed	9-1	68	Sprague Engineering & Sales Testing unit	9-15	115
		66	Pyrene Mfg. Co. Wheel chock	8-15	136	Square D Co. Aircraft pushbuttons Timing relay	7-15 9-15	144 63
National Broach & Machine Co. Automatic gear loader Gear shaver	7-15 8-1	62 55	R. C. S. Tool Sales Corp.			**************************************		
National Bureau of Standards New method for analysis of jet	7-15	60	Saw Ranaburg Electro-Coating Corp.	10-15	86	Effects of combustion chamber deposits on octane require- ment and engine power output (abstract)	7-1	36
engine exhaust gas Research on basic nature of detonation Tests of ceramic coatings for	10-1	37	Electrostatic atomization - a new painting process	9-1	54	Standard Gil Development Co. LPG versus gasolino and Dies		
engine exhaust systems	8-1	36	Rapids-Standard Co., Inc., The Table conveyor	9-15	60	fuel (abstract)	7-1	46
National Foun System, Inc. Foun for fires	8-1	68	Raymac Mfg. Co. Carbide drill	9-1	80	Standard Steel Spring Co. Nodern leaf spring design	12-15	38
Niagara Machine & Tool Works Circle shear and flanger	10-1	60	Reeves Pulley Co. Variable speed drive	12-1		Starrett, L. S., Co., The Micrometer depth gages	10-18	82
North American Aviation, Inc. Forming problems with stainless steel sheet metal			Reliance Electric & Engrg. Co.			Steel City Testing Machines, Inc.		
	7-15	42	Electronic drive	10-15	78	Inc. Hardness testing machine Testing machine	10-1 9-1	56 51
North American Philips Co., Inc., Research & Control Instruments Biv. Analysis unit	11-15	72	Usines (France) Latest American methods employed by Renault in France	9-	32	Stevens, Frederic B., Inc. Barrel plating machine	10-15	54
Northrop Aircraft, Inc.			Sen-Cru Titanium, Inc. Titanium industry expands			Stewart Warner Corp. Faster handling of palletize parts	d 12-11	33
engineering data Sideslip stability augmenter Stretch forming with flexible	12-1	56 59	(abstract)	11-1:				
ada i pmen c	7-15	38	Resistoflex Corp. Thermoplastic tubing	8-1	136	Studebaker Corp. New method for finishing hea of aluminum pistons	11-	37
Norton Company Aircraft strut grinder Automatic cam grinder Grinding machine Propeller hub grinder	10-1 11-15	60 64	Rolls-Royce, Ltd. (England) Develops heavy-duty Diesels	8-1	51	Sundstrand Machine Tool Co. Air sander	10-	64
Grinding machine	11-15 12-15 11-15	64 60 60	Rolock, Inc. Alloy grid	10-1	5 88			

AUTOMOTIVE INDUSTRIES-INDEX

T	Inne	Late	Union Tool Corp.	Issue	-	Wall Colsus
Taylor Bynamouster & Machine Co.			Machine for roller coating	11-15	64	Spray weldi
Drilling sachines	9-1	68	United Specialties Co. Automatic machines produce			Sarner Elect Clutch Co
felefies, Inc. Nechanical remote control	11-1	62	strong, economical spinnings	12-1	44	Air control
Tempil [®] Corp. Temperature indicator	8-1	64	U. S. Air Force Trends in Air Force research and development (abstract)	11-1	45	Borg-Barn Fewer alumi
Plastics in the automotive industries (abstract)	12-1	52	U. S. Bept. of Agriculture Parm tractors and implements (abstract)	10-1	100	Part 4 Wany close- tions each
Terms Co., The Engine oil	8-1	60	U. S. Dept. of the Navy Small gas turbine that may be started by hand	9-15	34	Warmer & Swa
Radiator hose	9-15	110	U. S. Government - Corps of			Saddle type
Thompson Products, Inc. Making jet engine inducers an exacting process	7-1	54	Engineers Wodification of standard earth- moving equipment for military requirements (abstract)	10-1	104	Wanual hand engine ass
Thomson Industries, Inc. Nylon liner for bearings	9-15	64	U. S. Government - Detroit Armenal			Relief grin
Thunder Bay Hfg. Corp. Presses	12-1	55	wilitary wheeled transport vehicle requirements (abstract)	7-1	35	Circuit bre Electronic tester
Timerman Products, Inc. Plat type fasteners Fire harness clamp	7-1 9-15	86 115	U. S. Covernment - Bright-Patterson Air Force Base New aluminum casting alloy for higher temperature	9-1	58	Machine too Plastic blo Selenium re
Penkins-Johnson Co., Inc. Double clinchor machines	11-15	64	U. S. Electrical Motors Explosion-proof motors	10-1	68	Punch press
Riveting machine	7-15	62	United States Rubber Co. Strong waterproof light fabric	8-1	98	Storage bat
Pork-truck platform adapter Pork trucks	12-1 10-1	57 68	Universal Products Co., Inc. Wide variety of universal joints			Production making tur
Self-locking fastener	8-1	96	on the production line Vanadium-Alloys Steel Co.	7-1	42	Wright Hoist
founley Trucks, Inc. Jet dolly	12-1	59	Vasco super high speed steels for machining titanium	12-15	158	Trolley hoi
fracerlab, Inc. Absorption Beta gage	10-15	70	Van Der Horst Corp. of America Discloses new iron plating method	12-1	35	Yale & Tome
Priometric, Inc. Materials handling kit	8-15	124	Vauxhall Motors Ltd. (England), of General Motors Corp. Plant tools up for new model	8-15	43	Battery cha Drum bandle Fork truck
Tru-Circle Products Co. Torque-indicating driver	7-1	62	W		-	Gasoline tr
Tumb-1-matic, Inc. Tumbling compound	9-15	108	Wabash Metal Products Co., Hydraulics Div. Laboratory press	12-15	98	Young Endias
farmer, Roscoe, Aeromantical Corp. Plastic coating	7-15	144	Sugmer Electric Corp., Automotive Div.			cutting of Oil cooler
Twin Bisc Clutch Co. Hydraulic torque converter for trucks has new braking method	10-1	38	Air brake foot valve	11-15	58	
II - V	10-1	**	Retaining nut	8-1	68	
inion Carbide & Carbon Corp.			Wales-Strippit Corp. Punch presses	10-1	60	

-11 -1	Issue	Page
all Colessoy Corp. Spray welding	10-15	54
armer Electric Brake &		
Clutch Co. Air controller for brakes	11-1	62
armer Gear Div.,		
Borg-Barner Corp. Pewer aluminum parts in Ford	1	
automatic transmission Part 4	10-1	44
Many close-tolerance opera- tions eachining Ford-Mercur		•
automatic transmissions	7-15	46
Armer & Swasey Co. Saddle type turret lathe	7-15	68
	1-10	98
Manual handling reduced on engine assembly lines		
engine assembly lines	7-1	46
estern Aero Industries Relief grinder	10-1	60
	10-1	00
Circuit breaker	7-15	88
Electronic surge comparison	12-15	86
Machine tool starter Plastic blowers	7-1 11-15	72
Selenium rectifier welder	9-15	63
hitney Hetal Tool Co.		-
Punch press	12-15	74
Storage battery Co.	9-1	72
right Aeronautical Corp.		
Production highlights in		
making turbine parts	9-1	44
Chain & Cable Co., Inc.		
Trolley hoist	7-1	70
X - Y - Z		
ale & Tome Hfg. Co.,		
Philadelphia Biv. Battery charger	7-15	78
Drum handler Fork truck clamp attachment	12-1	57
Gasoline truck	9-1	84
Motorized tractor Rotating clamp	8-15 8-1	64
foung Radiator Co.		
Heat exchanger setup cools cutting oil	11-15	122
	7-1	62